

Abstract

[0158] The semiconductor material handling system is an EFEM that may either mount to the front end of a processing tool or be integrated into the processing tool. The EFEM is built from a unified frame that the EFEM components, such as a wafer engine and a SMIF pod advance plate, may mount to. The frame serves as a common mounting structure that the EFEM components may use as a reference for alignment purposes. Since the EFEM components do not have to align with respect to the position of each other, the calibration, if any is required, is greatly simplified. The EFEM also has a reduced footprint, allowing the EFEM to mount to the front end of a processing tool and not extend to the fab floor. Thus, space is freed up between the EFEM and the fab floor. By way of example only, this space may be used as a maintenance access area to the processing tool without having to first remove the EFEM.